REMARKS

Entry of this Amendment and reconsideration of the subject application in view thereof are respectfully requested.

I. Claim Status

Claims 1-15, 18, and 21 are pending in the application. Claims 1-18 have been rejected. Claims 16-17 have been cancelled. Claims 19-20 have been withdrawn from consideration. New claim 21 has been added.

Support for the amendments and new claims is as set forth below:

(a) In claim 1, "an extruded product of a resin composition" is amended to "an extruded product produced by a process which comprises extruding and solidifying a resin composition". Support for this amendment may be found in claim 19.

(b) In claim 1, "exceeding 3 mm" is amended to "not smaller than 4 mm". Support for this amendment may be found in the passage of "The thickness of the plate is preferably greater than 3 mm, but smaller than 100, more preferably from 4 mm to 70 mm, particularly preferably from 5 mm to 50 mm. The same applies to the diameter of the round bar." (page 30, line 24 to page 31, line 1) in the present specification.

(c) In claim 1, the recitation "and has a surface resistivity of 10^5 to 10^{13} Ω/□" may be found in claim 16 in the as-filed application.

(d) In claim 1, a passages of "wherein the process for producing the extruded product comprises through the following Steps 1 to 3: (1) a step of feeding the resin composition to an extrusion forming machine, to which a die assembly composed of an extrusion die (i) and a forming die (ii) equipped with a cooling device at an exterior thereof and a passage in communication with a passage of the extrusion die at an interior thereof is coupled; (2) a step of extruding the resin composition into a desired shape from the extrusion die (i) while melting the resin composition by the extrusion forming machine; and (3) a step of cooling an extruded product in a molten state extruded from the extrusion die (i) in the interior of the forming die (ii) to solidify the extruded product" is incorporated next to the above amendment (c). Support for this amendment may be found in claim 19.

(e) In claim 4, "170°" is amended to "170°C". This amendment is an amendment made for correcting a typographical error based on the Examiner's suggestion.

(f) In claim 8, "95 to 5" is amended to "95:5". This amendment is an amendment for correcting a written error, and the same shall apply to claims 9 to 11.

(g) In claim 15, "which" is amended to "wherein the resin composition". This amendment is an amendment for correcting a written error.

(i) Regarding claim 21, support for this new claim may be found in claim 20.

No new matter is added.

II. Response to Non-Final Office Action of April 15, 2009

Applicant respectfully believes that the claim rejections made in the Non-Final Office Action of April 15, 2009 (herein referred to as "the Office Action" or "this Office Action" or "the present Office Action") have been either overcome or rendered moot in view of amendments to the claims herein and the following discussion.

A. Obviousness-Type Double Patenting

Claims 1-5 and 12-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 7,198,734. A terminal disclaimer is enclosed herewith. Accordingly, Applicant respectfully requests withdrawal of the rejection.

B. Rejection of Claims under 35 U.S.C. § 103

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable under Nishihata, et al. (WO 00/34369) ("Nishihata"). Applicant respectfully traverses this rejection and submits that the Examiner has not established a prima facie case.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all of the claim limitations. MPEP §2142; *Velander v. Garner*, 348 F.3d 1359, 1363 (Fed. Cir. 2003). The factors of *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), control an obviousness inquiry. Those factors are: 1) "the scope and content of the prior art"; 2) the "differences between the prior art and the claims"; 3) "the level of

ordinary skill in the pertinent art"; and 4) objective evidence of nonobviousness. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007) (quoting *Graham*, 383 U.S. at 17-18). "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). A prior art reference teaches away when "a person of ordinary skill in the art, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551 (Fed. Cir. 1994); *Cf. Baxter International, Inc. v. McGraw, Inc.*, 149 F.3d 1321 (Fed. Cir. 1998).

The general production of a resinous molded or formed product involves problems as described in the present specification as follows:

> The above-described resin parts are generally molded by injection molding. According to the injection molding, molded products such as resin parts having a desired shape can be mass-produced. However, resin parts used in an electric and electronic field or the like are required to have high dimensional accuracy, and so a mold for injection molding is naturally required to have high dimensional accuracy.
>
> In addition, since the molded product often deforms due to shrinkage and/or residual stress after the injection molding, the form of the mold for injection molding must be precisely controlled according to the shape of the molded product and properties of the resin material. Therefore, the mold for injection molding generally takes a long time to produce, and so the production cost thereof is compelled to be expensive. Since fraction defective upon actual injection molding is also high, the cost of products is often increased. In addition, it is difficult to mold a molded product having a great thickness by the injection molding.
>
> On the other hand, it is known to extrude a resin material to produce a stock shape for machining, such as a plate, round bar, pipe or special shape, and subject this stock shape to machining such as cutting, drilling or shearing to form a part of a predetermined shape. The method of machining the stock shape has such merits that parts produced in small quantity can be economically produced compared with the injection molding, the method can cope with frequent changes of part specification, parts high in dimensional accuracy are obtained, and parts having a shape unsuitable for the injection molding or a great thickness can be produced.
>
> However, it is not that any resin material or extruded product is suitable for a stock shape for machining. The stock shape for machining is required to have various properties, for example, (I) to be thick-wall and excellent in machinability, (II) to be low in residual stress, (III) not to be heated in excess by frictional heat generated upon machining to cause neither deformation nor discoloration, and (IV) to be able to be machined with high accuracy to scarcely produce burr upon, for

example, drilling. (page 5, line 17 to page 7, line 4)

Nishihata only describes specific molding as follows:

> Their corresponding components (numerical values indicate wt.%) shown in Table 1 were uniformly dry blended in a Henschel mixer, and each of the thus-obtained dry blends was fed to a twin-screw kneader extruder (PCM-45, manufactured by Ikegai Corp.) having a barrel diameter of 45 mm and melted and extruded, thereby preparing pellets. The pellets thus obtained were dried under reduced pressure and then fed to an injection molding machine (IS-75, manufacture by Toshiba Machine Co., Ltd.) to mold them, thereby forming flat plates (130 mm x 100 mm x 3 mm) for volume resistivity measurement. (page 38, lines 10-20)

In other words, Nishihata only specifically discloses injection molding. Nishihata does not disclose or suggest the newly added limitations regarding the process for producing the extruded product:

> wherein the process for producing the extruded product comprises:
>
> a step of feeding the resin composition to an extrusion forming machine, to which a die assembly composed of an extrusion die (i) and a forming die (ii) equipped with a cooling device at an exterior thereof and a passage in communication with a passage of the extrusion die at an interior thereof is coupled;
>
> a step of extruding the resin composition into a desired shape from the extrusion die (i) while melting the resin composition by the extrusion forming machine; and
>
> a step of cooling an extruded product in a molten state extruded from the extrusion die (i) in the interior of the forming die (ii) to solidify the extruded product.

The present inventors went against the prior art teachings, carrying out an extensive investigation as to such problems and discerning:

> that an extruded product, which is suitable for machining such as cutting, drilling and shearing, thick-wall and low in residual stress, is obtained by extruding and solidifying the above-described resin composition. More specifically, a feature of the process for producing a stock shape for machining according to the present invention resides in that an extruded product having a thickness or diameter exceeding 3 mm is obtained by extruding and solidifying the above-described resin composition through the following Steps 1 to 3:
> (1) a step of feeding the resin composition to an extrusion forming machine, to which a die assembly composed of an extrusion die and a forming die equipped with a cooling device at an exterior thereof and a passage in communication with a passage of the extrusion die at an interior thereof is coupled;
> (2) a step of extruding the resin composition into a desired shape from the extrusion die while melting the resin composition by the extrusion forming machine; and
> (3) a step of cooling an extruded product in a molten state extruded from the

> extrusion die in the interior of the forming die to solidify the extruded product. (page 27, line 10 to page 28, line 6)

Such features are not and cannot be suggested by the cited reference.

The Examiner indicates, "Although Nishihata does not disclose the exact thickness of the article, because the composition can be formed into various shapes, it would have been obvious to one of ordinary skill in the art for the article to be formed or molded into a shape having a thickness exceeding 3 mm." As described above, however, the injection molding specifically disclosed in Nishihata involves the problem disclosed in the present specification as follows:

> However, resin parts used in an electric and electronic field or the like are required to have high dimensional accuracy, and so a mold for injection molding is naturally required to have high dimensional accuracy.
>
> In addition, since the molded product often deforms due to shrinkage and/or residual stress after the injection molding, the form of the mold for injection molding must be precisely controlled according to the shape of the molded product and properties of the resin material. Therefore, the mold for injection molding generally takes a long time to produce it, and so the production cost thereof is compelled to be expensive. Since fraction defective upon actual injection molding is also high, the cost of products is often increased. *In addition, it is difficult to mold a molded product having a great thickness by the injection molding.* (page 5, line 20 to page 6, line 9)

The point indicated in the above description of the present specification that "it is difficult to mold a molded product having a great thickness by the injection molding" is important. Given the known difficulty in injection molding a product having a great thickness, Applicant respectfully submits that obviousness cannot be proven merely by showing that a known article could have been modified or molded into a shape having a thickness exceeding 3mm. The Examiner must show that those or ordinary skill in the art would have had some apparent reason to modify the known article in a way that would result in the claimed product. In the absence of this showing, it would not have been obvious to one of ordinary skill in the art to try to form the article into a shape having a thickness exceeding 3 mm. For the same reason, the use of such a thickness would not have provided a reasonable expectation of success, but a reasonable expectation of failure.

According to claim 1 of the present application, "A stock shape for machining" having a thickness or diameter "not smaller than 4 mm" is provided. "A stock shape for machining" having a thickness or diameter "not smaller than 4 mm" and "a surface resistivity of 10^5 to 10^{13} Ω/□" is not disclosed or suggested by the cited prior art. As stated in the specification, "the present invention

relates to a stock shape for machining, which can be strictly controlled to a desired surface resistivity falling within a semiconductive region, is excellent in mechanical properties, heat resistance, chemical resistance and dimensional stability and also excellent in machinability such as cutting ability and drilling ability" (page 1, lines 11-17). "The stock shape for machining" having a thickness or diameter "not smaller than 4 mm" and "a surface resistivity of 10^5 to 10^{13} Ω/□" as recited in claim 1 of the present application is very useful for use in "parts used in a fabrication process of semiconductors such as IC and LSI and mount parts thereof, parts used in a fabrication process of magnetic heads and hard disk drives and mount parts thereof, or parts used in a fabrication process of liquid display devices and mount parts thereof" (page 2, lines 11-19).

The Examiner indicates, "It also would have been obvious to one of ordinary skill in the art to optimize the thickness of the article, which affects the durability of the article, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art." Applicant respectfully disagrees and submits that the obviousness of features, particularly explicitly recited features that would affect the result, missing from the cited prior art cannot be supported by mere conclusory statements (for example, "affects the durability of the article"). The Examiner has not pointed to any teaching in the cited references, or provided any explanation based on scientific reasoning, that would support the conclusion that one of ordinary skill in the art would have considered it obvious to "optimize" the thickness of the prior art article by having a diameter not smaller than 4mm and a surface resistivity of 10^5 to 10^{13} Ω/□.

No one of ordinary skill in the art has realized "a stock shape for machining" having a thickness or diameter "not smaller than 4 mm" and "a surface resistivity of 10^5 to 10^{13} Ω/□" as apparent from the fact that no literature indicating such a stock shape. This is to be expected because, for the reasons discussed above, such features would not have been obvious to try, nor would the addition of such features provide a reasonable expectation of success. Accordingly, there is no teaching, suggestion, or motivation for including these features in the article of Nishihata.

In view of the foregoing, Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness of claim 1 under 35 U.S.C. § 103(a). Even if *prima facie* obviousness has been established, which it has not, it is urged that the cited art nonetheless fails to render the present invention obvious under a proper § 103 analysis. Each of the dependent claims require the limitations of claim 1 and, at least for these reasons, the

dependent claims also patentably define themselves over Nishihata. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

III. Conclusion

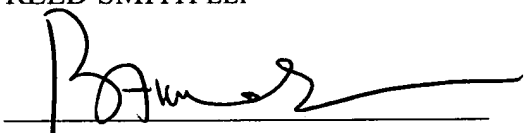
Applicant believes this response to be a full and complete response to the Office Action. Accordingly, favorable reconsideration in view of this response and allowance of all of the pending claims are earnestly solicited.

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Date: August 13, 2009

Respectfully submitted,

REED SMITH LLP



Nanda P.B.A. Kumar
Registration No. 44,853
Joseph Miller, III
Registration No. 61,748
2500 One Liberty Place
1650 Market Street
Philadelphia, PA 19103-7301
(215) 851-8100
Attorney for Applicant